

WHAT IS CLAIMED IS:

1. A method for preventing a substrate from being contaminated by particles, said substrate being disposed horizontally in an environment having a specified  
5 cleanliness, said method comprising:

the step of flowing clean gas along the top surface of said substrate at a specific relative horizontal speed with respect to said top surface of said substrate, such that a protective coating of said clean gas for protecting  
10 said substrate from particles is formed all over an entire area of said top surface of said substrate.

2. A method as recited in claim 1, wherein said protective coating includes a laminar boundary layer, a transition layer, and/or turbulent boundary layer.

15 3. A structure for preventing a substrate (W) from being contaminated by particles, said structure comprising:

a housing having the inside thereof kept at a specified cleanliness;

a holding means for holding said substrate horizontally  
20 inside said housing; and

a gas flowing means for flowing clean gas along the top surface of said substrate at a specific relative speed with respect to said top surface of said substrate, such that a protective coating of said clean gas for protecting  
25 said substrate from particles is formed all over an entire area of said top surface of said substrate.

4. A structure as recited in claim 3, wherein said protective coating includes a laminar boundary layer, a transition layer, and/or turbulent boundary layer.

5. A structure as recited in claim 3 or 4, wherein said holding means is adapted to be capable of moving said substrate within said housing.

6. A structure as recited in claim 3 or 4, wherein said gas flowing means includes:

10 a fan for circulating gas within said housing; and  
a filter disposed in a path of said gas circulation, for cleaning said gas to a clean gas having a specified cleanliness.

7. A structure as recited in claim 3 or 4,  
wherein said holding means is adapted to be capable  
15 of moving said substrate within said housing, and

wherein said gas flowing means includes:  
a fan for circulating gas within said housing; and  
a filter disposed in a path of said gas circulation,  
for cleaning said gas to a clean gas having a specified  
20 cleanliness.

8. A structure as recited in claim 3 or 4, further comprising:

an ion supply means for supplying the inside of said housing with ion for neutralizing static electricity  
25 occurring in particles contained in said clean gas.

9. A structure as recited in claim 5, further comprising:

an ion supply means for supplying the inside of said housing with ion for neutralizing static electricity occurring in particles contained in said clean gas.

10. A structure as recited in claim 6, further comprising:

5        an ion supply means for supplying the inside of said housing with ion for neutralizing static electricity occurring in particles contained in said clean gas.

11. A structure as recited in claim 7, further comprising:

10        an ion supply means for supplying the inside of said housing with ion for neutralizing static electricity occurring in particles contained in said clean gas.